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Intelligence Memorandum

Limits To Soviet Use Of Western Credits

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CENTRAL INTELLIGENCE AGENCY
Directorate of Intelligence
February 1971

INTELLIGENCE MEMORANDUM

Limits To Soviet Use Of Western Credits

Introduction

In recent years the USSR has increasingly borrowed on long term to finance imports of Western machinery and equipment and, as a result, Soviet outstanding indebtedness to the Developed West has risen to roughly $1.5 billion. The size of the current debt and evident Soviet willingness to continue importing from the West on long-term credit raises the questions of Soviet ability to service or willingness to incur a growing indebtedness. This memorandum attempts to project possible limits of Soviet indebtedness to the West and discusses prospects for the growth of Soviet export earnings to help service this debt.

Soviet Use of Western Credits

1. Soviet imports on long-term credits from the West reached the half-billion-dollar level in 1969, and the outstanding debt rose to about $1.2 billion at the end of that year (see Table 1). Drawings for 1970 probably were more than $700 million, with the debt expected to have reached more than $1.5 billion by 1 January 1971. Drawings and outstanding debt have increased rapidly since long-term credits from the West became available in the mid-1960s. By contrast, the USSR in the

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Note: This memorandum was prepared by the Office of Economic Research.

Table 1

Estimated Soviet Drawings and Scheduled Repayments on Western Medium-Term and Long-Term Credits a/

Million US $

Year	Estimated Drawings	Scheduled Repayments	Interest	Net Credits	Outstanding Debt at End of Year
1959	60	12	0	48	48
1960	125	37	2	86	136
1961	165	70	6	89	231
1962	180	106	10	64	305
1963	140	130	14	-4	315
1964	170	147	15	8	338
1965	190	149	17	24	379
1966	275	149	20	106	505
1967	305	152	29	124	658
1968	435	206	38	191	887
1969	525	248	59	218	1,164

a. Drawing estimates are based on data derived from contracts indicating delivery and credit terms and on Soviet imports of machinery and equipment. In general, early contracts (1959-64) involved 80%-85% credit and 5% interest. A large number of contracts since 1965 have involved 85% credit and 6% interest. Repayment periods for the earlier credits were usually three to five years following downpayment. Typical terms since 1965 have been eight years following delivery of equipment. Data for 1969 are preliminary estimates.

early 1960s had made only modest use (about $150 million a year) of medium-term Western credits -- then the best terms available -- to help finance imports. Some decline in Soviet imports of capital goods and in drawings on Western credits seems likely in 1971. Soviet orders from the West declined sharply in 1969 from about $680 million to roughly $400 million and preliminary data indicate orders at about the 1969 rate during 1970. Completion of Western deliveries on the Fiat plant is expected to contribute to the decline in deliveries in 1971.

2. This downturn in Soviet imports of capital goods from the West is not expected to continue. Credit-financed imports of large-diameter pipe from Italy and West Germany will be substantial through 1974. Moreover, Soviet technology still badly lags that of the Industrial West, and the present Soviet leadership seems determined to narrow that gap. A number of large-scale contracts -- many featuring repayment in products generated by the credit -- are being discussed at present with Western nations, including those for development of the Udokan copper deposits in Siberia, nickel deposits in the Urals, and forestry exploitation in Siberia. Completion of these and other contracts probably depends on priorities still under discussion for the next five-year plan.

Soviet Debt Limits

3. The growth of the Soviet debt raises the question of how large the debt may become before repayments offset new drawings. Three alternative debt hypotheses are presented in Table 2, below. The outstanding debt at the point at which repayments (including interest) exceed drawings for each hypothesis varies from about $2 billion to $3.7 billion. Projection A assumes continued drawings for machinery and equipment at the 1969 level, to which has been added an amount equal to the added imports of large-diameter steel pipe already under contract for delivery.* With this

* *Imports of West German pipe on credit are valued at $165 million annually in 1970-71 and of Italian pipe at $40 million annually during the period 1970-74.*

Table 2

Projections of Soviet Indebtedness
to Western Creditors a/

Million US $

Year	Drawings b/	Scheduled Repayments b/	Interest	Net Credit	Outstanding Debt at End of Year
		Projection A			
1969	525	248	59	218	1,164
1970	730	291	69	370	1,603
1971	730	361	86	283	1,972
1972	565	438	99	29	2,099
1973	565	509	126	-70	2,155
1974	565	545	129	-109	2,175
1975	525	572	131	-178	2,128
1976	525	583	129	-187	2,070
		Projection B			
1969	525	248	59	218	1,164
1970	730	291	69	370	1,603
1971	730	361	86	283	1,972
1972	730	459	99	173	2,243
1973	730	551	135	44	2,422
1974	730	607	145	-22	2,545
1975	730	659	153	-82	2,616
1976	730	695	157	-122	2,651
		Projection C			
1969	525	248	59	218	1,164
1970	730	291	69	370	1,603
1971	730	361	86	283	1,972
1972	1,000	451	99	451	2,521
1973	1,000	576	132	293	2,945
1974	1,000	666	157	177	3,279
1975	1,000	752	177	71	3,527
1976	1,000	823	192	-15	3,704

a. Because of rounding, components may not add to the totals shown.
b. Credits are assumed to be for an average of eight years at 6% interest.

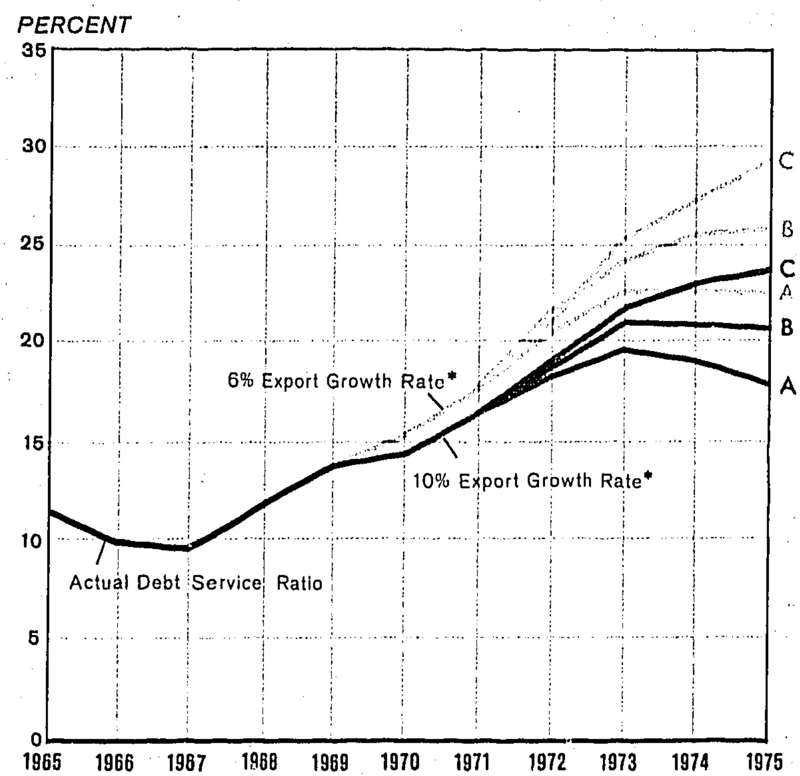
level of drawings, the outstanding debt in 1973, when repayments first exceed drawings, would be slightly more than $2 billion. If the USSR were to reduce drawings in 1971 (this seems possible because of the reduction in orders in 1969-70), the excess in repayments could occur as early as 1972 at a debt level slightly below $2 billion. In projection B, drawings remain constant at the high level estimated for 1970. In this case, repayments would not surpass drawings under long-term credit until 1974, at which time the debt would be about $2.5 billion. Projection C assumes continued growth of Soviet drawings after 1971 to an annual level of $1 billion. Under these conditions, repayments would not match new drawings until 1976 at a debt level of about $3.7 billion.

4. Among the factors affecting Soviet decisions on the limits to set on this debt to the West are the expected growth of exports to the Developed West and the portion of export earnings that would be committed to repayments on the debt. Projections of exports to the West through 1975 (including anticipated earnings from long-term repayment-in-kind contracts already in force) range from 6% to 10%, virtually all of which will come from traditional Soviet exports (see paragraphs 8 to 19 below). The chart shows the ratio of debt service to export earnings for the period 1965-69 and the estimated ratios for 1970-75, assuming export growth rates of 6% and 10%. Repayments estimates are derived from Tables 1 and 2. Throughout most of the 1960s, this ratio had averaged about 10%, roughly similar to what it has been for most of the East European Communist countries, but the ratio has increased since 1968.*

5. For the East European countries, with their smaller economies, greater dependence on trade, small gold reserves, and lack of the variety of credit facilities available to members of the IMF, 10% is a reasonable debt service ratio. The USSR, however, has far more flexibility in its supply of hard currency than do the East European

* *Bulgaria is an exception, having gotten in payments difficulties in 1968 when its hard currency debt service ratio went up to 22%. Romania also has had problems, and its ratio is now close to 15%.*

Ratio of Soviet Debt Service to Exports to Free World Developed Countries



* Based on debt repayment projections A, B, and C from Table 2

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countries. The Soviet economy is large and diversified, depends much less on foreign trade, and has relatively large reserves of gold. A debt service ratio of 20%-25% or even more probably would be accepted by Western creditors. With an export growth rate of 6%, the 20% level would be reached in 1972 for the three repayment schedule projections. Assuming a 10% export growth rate, this point is not reached until 1973. Only projection C combined with an export growth of 6% ever exceeds a ratio of 25% by any significant amount. The USSR, nevertheless, seems unlikely to borrow to the maximum extent that Western lenders will allow. The Soviet government probably will follow a conservative policy in this regard and could be reluctant to mortgage even 20% of future export earnings to debt service.

Self-Amortizing Debts

6. Soviet awareness of the growing debt service burden has been apparent in recent contract negotiations. Traditionally, Soviet borrowing from the West was used neither to expand exports to hard currency countries nor to replace imports from these countries. Recently, however, the USSR has tried more and more to use Western technology for export expansion. Specifically, it has sought to repay Western credits with the products of the installation built with these credits and has sought contracts for exports of these products in excess of repayments. The only sizable contracts of this type now in effect, however, are the 1968 Soviet-Japanese timber agreement and the recent Soviet gas-for-pipe deals with Austria, Italy, and West Germany. The Japanese-Soviet timber agreement is providing the USSR with $130 million in Japanese equipment to exploit Siberian timberlands, and the five-year credit terms call for repayment of the loan through deliveries of wood during 1970-74. The pipe-for-gas contracts call for Soviet purchase of roughly $650 million in large-diameter pipe from 1968 to 1974 with repayment by Soviet deliveries of natural gas. The Austrian pipe, valued at $100-$115 million, will be paid off through gas deliveries by 1977; pipe from Italy will be paid by the same year; and by 1987 the West German pipe, valued at $330 million, will be paid off.* The USSR has proposed a number of similar contracts to various Western nations, although most of these proposals have languished because of overly optimistic plans for very large credits, longer than usual repayment periods, and low interest rates. Most of those proposals, if brought to completion, not only would be paid off by deliveries of goods from the projects, but also would ultimately improve Soviet hard currency earnings, as do the gas-for-pipe deals.

7. The development of the Udokan copper deposits in Siberia at a cost of more than $1 billion is one such project proposal. Participation

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* *Soviet exports of gas to these countries after the recoupment period will earn the USSR about $90 million annually in hard currency from Austria and Italy (after 1977) and about $35 million from West Germany (after 1987).*

of a number of Western nations has been solicited. A project which seemed on the verge of consummation in 1970, but has not yet been agreed upon, is another contract with Japan for forestry exploitation in Siberia, with Japanese machinery and equipment exports expected to total $350 million. Projects more likely to be consummated in the near future involve plant and equipment to exploit nickel deposits in the Urals (to cost $70-$80 million), an iron ore pelletization plant to exploit iron ore deposits on the Kola Peninsula near Murmansk (estimated at $120 million), and equipment to develop oil deposits off-shore from the Maritime Provinces, Sakhalin Island, and Kamchatka. The last of these proposals was made to Japan, but West Germany recently offered to make it a joint effort with Japan. Some longer term and less likely projects that have been proposed by the USSR are: development of the coal fields in southern Yakutsk; development of the Tyumen oilfields, with a pipeline to the port of Nakhodka; a natural gas pipeline on Sakhalin Island; and construction of electric power stations in the Far East.*

Soviet Export Potential

8. The new projects described above, which have been or may be implemented with Western aid, will add only about 5% to Soviet exports to the Developed West by 1975 and during this period will provide only small amounts of hard currency in excess of their own repayments requirements. Thus gross earnings from gas deliveries -- about $15 million in 1970 and rising to about $100 million by 1975 -- probably will do little more than cover the debt service for the pipe loans. Earnings from timber on the Soviet-Japanese deal will average about $25 million annually through 1974 -- about the amount of debt service for the loan. No other major contract calling for repayment in product has been concluded, and it is unlikely that any of the potential contracts will result in substantial Soviet exports before 1975.

9. Over the next five years, Soviet hard currency earnings will have to come chiefly from products now exported to the West. Soviet exports to the developed countries over the period 1959-69

* *For details on these proposed contracts, see the Appendix.*

have grown at an annual rate of 11.4%. Exports rose about $140 million annually in 1959-69, with larger increases achieved after 1964 -- $190 million a year -- than before 1964 -- $100 million a year (see Table 3). But growth has slowed in the past two years: exports rose 8.7% in 1969 and apparently about 8% in 1970.

10. To project the growth of total Soviet exports to the developed countries over the next five years, several extrapolations were made.* A simple extrapolation of the 1959-69 average annual rate of 11.4% gives exports in 1975 of almost $4.3 billion, more than $2 billion higher than in 1969. Projections obtained by fitting various types of statistical trends to historical data range from about $3 billion to more than $4 billion,** implying annual growth rates ranging from 6% to more than 10%.

11. For the next five years the rate of growth of exports seems likely to be nearer 6% than 10%. This judgment is based on projections of the most important traditional Soviet exports -- oil, wood and wood products, metals, coal and coke, cotton, and furs -- and information on the development of new exports. Projections for commodity groups were made on the basis of past trends where the results seemed consistent with other information. However, for some products, particularly petroleum, past trends were not used, because the

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* *Based on data for 1958-69.*

** *Both linear and nonlinear regressions were used. Linear regressions indicated a value of exports in 1975 of about $3 billion, and nonlinear regressions yielded estimates of more than $4 billion. The LaGrangian multiplier was applied for better fit and hence greater precision of the extrapolations. For the linear regression, with no adjustments, the figure is $2.9 billion; "forcing" the 1969 figure to conform to the actual number for 1969 instead of the calculated figure for that year yields a 1975 estimate of more than $3.1 billion. For the nonlinear regression, with no adjustment, the estimate for 1975 is almost $4.1 billion; with the adjustment, the estimate is somewhat more than $4 billion.*

Table 3

USSR: Trade with Free World Developed Countries

Million US $

Year	Exports	Imports a/	Balance
1958	682	633	49
1959	867	769	98
1960	983	1,080	-97
1961	1,069	1,093	-24
1962	1,115	1,283	-168
1963	1,218	1,400	-182
1964	1,282	1,734	-452
1965	1,438	1,601	-163
1966	1,711	1,742	-31
1967	1,886	1,782	104
1968	2,051	2,144	-93
1969	2,230	2,494	-264

a. F.O.B.

situation evidently had changed. An annual growth rate of 6% would mean an increase of about $935 million over the period 1970-75. The following tabulation shows the possible commodity composition of such an increase -- including platinum group metals and diamonds -- compared with achievements in the past six years:

Commodity	Million US $: Exports to Developed West in 1969	Increase in Exports During: 1964-69	Increase in Exports During: 1970-75
Oil	468	184	30
Gas	12	12	100
Coal and coke	115	17	0
Metals (except platinum group)	310	194	140
Wood and wood products	346	135	150
Cotton	77	47	75
Furs	49	-18	0
Platinum group metals	95 a/	65	55
Gem diamonds	155 a/	150 a/	145
Other exports	603	226	240
Total	*2,230*	*1,012*	*935*

a. Estimated.

12. During 1965-68, exports of oil -- the major Soviet foreign exchange earner in the West -- accounted for more than one-fourth of the total increment in Soviet exports to the developed countries. In 1969, however, Soviet exports of oil to the West declined almost $40 million to a level of $468 million. If, as seems likely, the USSR wishes to continue to supply most of the oil required by Eastern Europe, the oil available for export to the West probably will not rise much, if at all, above the current level of about $0.5 billion during the next five years.* Gas exports will grow rapidly, but will not be much more than $100 million in 1975. Thus oil and gas exports combined will increase by only about $130 million (roughly 27%) compared with an increase of $196 million or 69% in the previous six years.

13. Coal and coke exports to the West have remained at roughly $100 million annually for the past five to six years. Exports were up to $115 million in 1969. Much of the coal that the USSR exports is not of premium quality and generally does not fully satisfy current Western specifications. As a result, shipments to the developed countries are not expected to grow much, if at all, beyond present levels by 1975.

14. Exports of metals, except platinum group metals which are not shown in Soviet trade statistics, have grown rapidly since 1967. Exports of ferrous metals -- steel, pig iron, and ferroalloys -- have remained at about the same level since 1964, averaging $110 million annually; exports of nonferrous metals, particularly nickel, have increased rapidly in recent years -- from $75 million in 1964 to more than $200 million in 1969. Projections of trends in metal exports suggest that they will be on the order of $450 million in 1975. Because of the vulnerability of the fastest growing metal export earners to fluctuations in Free World markets, export growth may be somewhat less. Much of the rise in nickel exports in 1969, for example, was due to depressed Free World supply and high prices resulting from the lengthy strike at the major Western producer.

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* *Estimates of future Soviet oil exports are contained in ER IR 70-24,* Prospects for Continued Soviet Exports of Petroleum, *September 1970, CONFIDENTIAL.*

15. Among other traditional Soviet exports, those of wood and wood products, valued at about $350 million in 1969, could increase to roughly $500 million by 1975, more than the growth of the previous six years. Such a growth, however, depends in part on substantial investments which are likely to be made only under special arrangements with other countries. The Japanese market holds the greatest promise for Soviet wood exports -- primarily logs from Siberia, which were valued at more than $100 million in 1968 and 1969. The current timber-for-equipment agreement calls for about $25 million in wood to be exported to Japan annually over the period 1970-74. Even if the proposed Japanese-Soviet equipment-for-wood-chips contract worth $350 million is concluded soon, it will not generate much in the way of exports by 1975. Prospects for lumber exports are not favorable without additional investments. Such exports have declined in the last five to six years.

16. Cotton fiber has been a mainstay of Soviet exports to the developed countries for two decades. Good crops in the late 1960s led to an expansion of exports to a level of over $100 million in 1967-68. Exports declined in 1969, but a record crop in 1970 may lead to increased exports in 1971. Given the uncertainties surrounding agricultural production, the projections are largely arbitrary. We assume exports of about $150 million by 1975. Soviet exports of furs have remained at roughly the same level for the past decade. It is assumed that there will be little, if any, increase in such exports in the next five years.

17. Two major items exported by the USSR to the developed countries are not identified in Soviet statistics. These are platinum group metals and gem diamonds. Soviet exports of platinum group metals were valued at about $100 million in both 1968 and 1969, almost double their level in 1965. Exports of these metals are strongly affected by world demand and prices, but the Soviet share of the market tends to remain steady even in periods of declining demand and price. Assuming growing demand, Soviet exports might rise to a level of about $150 million by 1975.

18. Gem diamonds are a relatively new export commodity for the USSR. Exports grew from about $25 million in 1965 to about $155 million in 1969, but sales fell in 1970 owing to reduced demand in the West. With increasing incomes, Western demand should soon resume its growth, and Soviet exports could be doubled by 1975.

19. The commodities included in the above projections account for about three-fourths of Soviet exports to the Free World developed countries. The sum of the individual projections to 1975 suggests a value of about $2.3 billion. If the combined share of these categories in 1975 is roughly the same as in 1969, total exports to the developed countries in that year would be $3.1-$3.2 billion -- implying an average annual growth of 6%. The commodities currently making up the other one-fourth include machinery and equipment, chemicals, fertilizer, vegetable oil and oilseeds, wheat, ores and concentrates, fish, and other items. Exports of some of these items have increased in recent years and may continue to rise, but others may decline or level off. All of the above items except machinery, like the traditional exports, are raw materials and semimanufactures. Manufactured products such as machinery will remain largely uncompetitive in the West for the foreseeable future.

Balance-of-Payments Implications

20. If the USSR fails to expand its exports at a rate much above 6%, it may have to take some painful actions to balance its payments with the developed countries. As shown in Table 3, above, Soviet trade with these countries has been in deficit for most of the last decade. The average deficit in the 1960s was almost $140 million a year. With a marked slowdown in the growth of exports, the USSR will have to slow the growth of its indebtedness to the West in order to hold the ratio of debt service to exports within reasonable bounds. As shown earlier the continued rise in credit repayments would soon lead to a net outflow on credit account if new deliveries leveled off. Thus a shift from a net inflow to a net outflow of funds on capital account would accompany the

slowdown in exports and both factors would adversely offset import capacity -- the ability to pay for current imports. In the following tabulation, projections to 1970-75 are shown which include:

exports -- a 6% rate of growth;

net flows on Western credit account -- only projections A and B from Table 2 were used because projection C gave debt service ratios exceeding 25%;

and import capacity -- measured as the sum of exports and net credits.

		Net Western Credits		Import Capacity	
Year	Soviet Exports	Projection A	Projection B	Projection A	Projection B
1969	2,230	218	218	2,448	2,448
1970	2,364	370	370	2,734	2,734
1971	2,506	283	283	2,789	2,789
1972	2,656	29	173	2,685	2,829
1973	2,815	-70	44	2,745	2,859
1974	2,984	-109	-22	2,875	2,962
1975	3,163	-178	-82	2,985	3,081

21. The projections show a much smaller increase in import capacity than in exports -- \$500-\$600 million compared with \$900 million -- as a result of net credit flows. Depending on which credit policy is followed, import capacity could temporarily decline some time during the period. These projections depend on many assumptions, any of which could be wrong. Even if the overall projections are correct, those for individual years could be far off the mark. But unless we have grossly underestimated export prospects, it seems highly probable that Soviet import capacity in hard currency will increase much more slowly in the next few years than it has since the mid-1960s. And it is likely that import capacity will level off before the mid-1970s.

22. If exports do not grow faster than suggested above, the USSR will have to sell gold or ration its imports more strictly. Presumably, imports of highly prized Western equipment and technology would be maintained to the extent possible, but there probably will be greater substitution of technology for equipment. The leading candidate for pruning is the category of manufactured consumer goods, of which the USSR imports about $200 million annually from the West. Should a leveling off or decline in import capacity coincide with poor grain harvests and the Soviets have to import large quantities of wheat from the West, capital goods imports would also be curtailed as they were in 1963-65.

23. If the USSR succeeds in tying an increasing share of long-term credits to repayments in kind, its long-term debt position will be much more manageable. Any future agreements of this type, however, will have little effect on export earnings over the next five years, and decisions to reduce the growth of imports, or perhaps even their level, may have been made already.

Conclusions

24. Soviet indebtedness to the West, mainly long-term, has grown rapidly in recent years; it was about $1.5 billion at the end of 1970 and will probably reach $2 billion within two years. Debt service charges are rising rapidly and were equivalent to about 15% of export earnings in 1970, compared with a 10% average in the 1960s. If, as seems likely, Soviet export growth slows markedly, the ratio of debt service to exports will soon surpass 20% and could exceed 25% before 1975. The USSR's credit in the West is good, and Soviet control over the economy and over the use of foreign exchange resources insures that debt obligations can be met. However, the Soviet government probably wishes to avoid the reduction in flexibility which a high debt service ratio would produce. For the USSR a ratio much over 20% probably would seem excessive.

25. Soviet export growth is not expected to be much more than 6% a year in 1970-75, mainly because exports of petroleum, the major Soviet foreign exchange earner, probably will remain at about the current level. A substantial expansion of exports of such items as wood, nonferrous and platinum group metals, and diamonds will be necessary to attain the 6% growth rate.

26. Soviet awareness of the need to expand exports can be seen in several recent contracts and in other proposals in which the USSR has sought to tie repayment to deliveries of the product from the installation built with the Western credit. Most of these arrangements would ultimately improve Soviet export earnings but they will have little impact on such earnings between now and 1975.

27. Failure to increase exports at a rate much faster than 6% could force the USSR to make difficult adjustments. To hold debt service payments within reasonable bounds, the USSR would have to stop increasing drawings on new credits. Repayments would then soon exceed drawings, and the net flow on credit account would shift from a large surplus to a deficit. This shift on credit account will mean that purchasing power over imports -- import capacity -- will increase much less than exports. In some years it may level off or decline. Thus the USSR may have to restrict imports of lower priority goods. In any case, the USSR cannot, in the next few years, rely on acceleration of imports from the Developed West to help overcome its technological lag.

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